

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**1.-97.** (canceled)

**98.** (currently amended) An apparatus useful for detecting the addition of a sample to a test strip in a lateral flow assay comprising:

a housing having a receptacle for retaining a test strip for a lateral flow assay; and

an autostart means;

wherein the autostart means comprises a capacitance sensor that senses a change in capacitance when a sample or buffer is applied to the test strip placed in the receptacle, and initiates timing of the assay, and a means for regulating voltage across the capacitance sensor.

**99.** (previously presented) The apparatus of claim **98**, further comprising a heating element positioned to lie under and contact the test strip when the test strip is in place.

**100.** (canceled)

**101.** (previously presented) The apparatus of claim **98**, further comprising a test strip.

**102.** (previously presented) The apparatus of claim **101**, wherein the test strip contains a biological sample.

**103.** (previously presented) The apparatus of claim **102**, wherein the biological sample is selected from the group consisting of whole blood, serum, plasma, and urine.

**104.** (previously presented) The apparatus of claim **102**, wherein the biological sample is a human biological sample.

**105.** (previously presented) The apparatus of claim **102**, wherein the biological sample is a non-human biological sample.

**106.** (previously presented) The apparatus of claim **105**, wherein the non-human biological sample is a sample consisting of a livestock and a food product.

**107.** (withdrawn) An apparatus for conducting lateral flow assay on a test strip for detection of an analyte in a sample comprising:

a housing having a receptacle for retaining a test strip for a lateral flow assay;

an autostart means;

a test strip comprising an internal quality control means; wherein the autostart means senses application of sample or buffer to the test strip when the test strip is placed in the receptacle, and initiates timing of the assay.

**108.** (withdrawn) The apparatus of claim **107**, wherein the internal quality control means of the test strip comprises a first control measurement zone including a first control agent immobilized therein which is capable of binding the control agent; the first control agent being in mathematical relationship with the second control agent.

**109.** (withdrawn) The apparatus of claim **107**, further comprising a detection means for detecting reflectance of the test strip.

**110.** (withdrawn) The apparatus of claim **107**, further comprising a heating element positioned to lie under and contacts the test strip.

**111.** (withdrawn) The apparatus of claim **107**, wherein the detection of the analyte includes quantitation of the analyte.

**112.** (withdrawn) A method of detecting an analyte in a sample by use of a lateral flow assay on a test strip comprising the steps of:

- (a) providing a sample on a test strip;
- (b) allowing an analyte in the sample, if present, to react with an analyte binding agent on the test strip to form a complex;
- (c) measuring reflectance of the test strip after formation of the complex;
- (d) detecting background reflectance; and
- (e) determining amount of analyte present.

**113.** (withdrawn) The method of claim **112**, wherein the method comprises use of a software program to effect one or more of the steps.

**114.** (withdrawn) A method of analyzing results of a lateral flow assay on a test strip for detection of an analyte, wherein the test strip comprises a first control measurement zone a second control measurement zone, and an analyte binding zone, comprising the steps of:

- (a) determining reflectance of the test strip;
- (b) generating a baseline reflectance;
- (c) quantifying measurement zones with respect to the baseline; and
- (d) comparing measurement zones corresponding to the control binding zones and analyte binding zone.

**115.** (withdrawn) The method of claim **114**, wherein the baseline is generated after the analyte, if present, has been allowed to react with an analyte binding agent in the analyte binding zone.

**116.** (withdrawn) A method of conducting quality control on a test strip for a lateral flow assay comprising the steps of:

- (a) detecting a first reflectance of a first control zone containing a first control binding agent bound to a control agent;
- (b) detecting a second reflectance of a second control zone containing a second control binding agent bound to the control agent; and

(c) determining a mathematical relationship between the first reflectance and the second reflectance to determine if the mathematical relationship is within a specified range.

**117.** (currently amended) The apparatus of claim **98**, further comprising an optical sensor aligned with the test strip ~~when the test strip is in place~~ in the receptacle.

**118.** (previously presented) The apparatus of claim **117** further comprising a moving mechanism attached to the optical sensor that moves the optical sensor with respect to the test strip.

**119.** (currently amended) The apparatus of claim **117** further comprising a moving mechanism attached to the ~~test strip~~ housing that moves the test strip with respect to the optical sensor, wherein the housing is a cartridge.

**120.** (currently amended) The apparatus of claim **98**, further comprising ~~an infrared~~ a sensor that detects the insertion of the test strip housing, wherein the housing is a cartridge into the receptacle.

**121.** (new) The apparatus of claim **120**, wherein the sensor is an infrared sensor.